PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF MARCH 18, 1924

A regular meeting of the New York Entomological Society was held at 8 P. M. on March 18, 1924, in the American Museum of Natural History, President Harry B. Weiss in the chair with 17 members and three visitors present.

Mr. Nicolay reported for Field Committee, stating that the next trip would be to Wyandanch on April 6.

Mr. C. F. Dalman, 70 West 126th St., was elected an active member of the Society.

Mr. Davis reported that Dr. Bequaert had reached Havana en route for Central America.

Mr. Davis also read from a letter from J. H. Emerson referring to the 50th anniversary of Cambridge Entomological Club and the survival of five of its founders, viz.: Emerton, Mann, Schwarz, Dimmock and Henshaw.

Letters were read from the family of the late E. A. Bischoff and from M. D. Leonard.

The secretary was instructed to prepare a letter introducing Dr. Leonard to Entomologists in Spain for his use while in that country.

Mr. Barber spoke on "Maternal Care shown by Certain Hemiptera." A specimen of *Pachycoris fabricii* from Porto Rico was exhibited and the behavior of the nymphs in running to the mother when disturbed was described. In support of this observed example of maternal care references were given from various authors to similar behavior in the case of *Elasmostethus griseus* of Europe, specimens of which were also shown.

Mr. Glick read a paper on "Entomology in Arizona" in which, after showing by maps and descriptions, the fragments of agricultural land surrounded by mountains and desert, he discussed some specific problems of economic entomology in Arizona, especially the Thurberia boll weevil and the connection of the moth Myelois venipars with the citrus black rot, Alternaria citri, which Mr. Glick thought was secondary. Specimens were exhibited of all these and of the work of thrips on citrus leaves.

Several members joined in discussion of collectors and collecting places in Arizona, Mr. Glick pointing out the value of natural tanks in rock basins in the mountains.

Mr. Davis exhibited a beetle new to the United States, Stenodontes chevrolati, found on Big Pine Key, Florida, in 1914, by a boy he and Mr. Sleight had interested during their visit in September, 1913. Mr. Mutchler, who identified the insect, said it was known from Cuba and the Bahamas.

MEETING OF APRIL 1, 1924

A regular meeting of the New York Entomological Society was held at 8 P. M. on April 1, 1924, in the American Museum of Natural History, Vice-President Frank E. Lutz in the chair with 12 members and one visitor present.

The treasurer stated that Mr. L. B. Woodruff had paid \$50 for the reprints of his article in the March Journal and \$100 towards its cost, which amounts would be included in receipts for April.

In consideration of Mr. Woodruff's gift to the publication cost, he was elected a Life Member of the Society and the secretary was instructed to write to him how sincerely his fellow members appreciated his generosity.

Mr. Mutchler read report of Outing Committee, giving details of proposed trip to Wyandanch on April 6.

Mr. Leng read a letter from R. P. Dow describing a remarkable migration of *Pyrameis cardui* which will be printed in Miscellaneous Notes.

Mr. Leng read also the editorial by Carl Heinrich in Proceedings Entomological Society of Washington XXVI, recommending discretion "in the promiscuous description of new species unconnected with revisional work, identifying keys, food plant or rearing records."

Mr. Davis read a further letter from Mr. Dow in which entomology and personal matters were entertainingly combined.

Mr. Mutchler exhibited "Insectæ Portoricensis" by George N. Wolcott in which the work of members of the Society was frequently mentioned.

Mr. Glick announced the death on March 24 of Alex. D. MacGillivray, recently elected a member of the Society; the secretary was instructed to send an expression of sympathy to his family.

Mr. Hall gave an interesting account of "Early Butterfly Collecting in Wind River Range, Wyoming," illustrated by specimens of 30 species, viz.: Papilio glaucus, Parnassius smintheus, Pieris napi, Euchloe ausinides and sara, Eurytheme eriphyle, Coenonympha pamphiloides and haydeni, Erebia epipsodia, Brenthis helena, frigga and freija, Euphydrya anicia and giletti, Phyciodes montana, Polygonia faunus and zephyrus, Aglais antiopa, Vanessa cardui, Mitura spinetorum, Incisalia eryphon, Callophrys affinis, Heodes snowi, Philotes glaucon, Plebeius saipiolus, Phaedrotes piasus, Glaucopsyche lygdamas, Hesperia ruralis, Thanaos icelus and persius. These were collected on six clear days between June 19 and 29, at a ranch 7,500 feet elevation or in a cold valley near it; and the differences in the species caught in the two localities were emphasized. A little collecting was done on ridges 9,000 feet high but, owing to the late season, the snow was still too deep for any collecting on the 13,000 feet peaks. Photographs of the locality were shown; also a light net with which a few of the specimens were caught from horseback.

In the general discussion which followed the migrations of butterflies, the occurrence of cold valleys, and Mr. Heinrich's editorial, were freely discussed.

Mr. Bridwell exhibited unidentified beetle larvæ in the seeds of Xanthium (burdock) and in the stems of Chenopodium (goosefoot).

MEETING OF APRIL 15, 1924

A regular meeting of the New York Entomological Society was held at 8 P. M. on April 15, 1924, President Harry B. Weiss in the chair, with 14 members, and six visitors present.

Mr. Sherman reported for the Publication Committee that Mr. Notman had resigned the editorship of the Journal and that the Committee had been fortunately successful in prevailing upon Mr. Weiss to assume the duties of editor.

On motion, duly seconded and carried, the secretary was instructed to write Mr. Notman expressing the Society's thanks for his services and its acceptance of his resignation.

Mr. Nicolay for the Field Committee reported on the last field trip and announced one for April 20 to Roselle Park.

Mr. Woodruff's acknowledgment of his election as a life member was read.

Dr. Avinoff spoke of the "Position of Parnassius and its Relation to other Genera of Papilionidæ," illustrating his remarks by the small part of his collection which survived the Revolution in Russia, and by several maps to show distribution. A box of American Museum specimens, prepared by Mr. Watson, was also used to illustrate the relation of the genus The preponderance of palaeartic species was first explained, to Papilio. there being but four species in North America, and the mountainous habit of most species, with an extraordinary abundance in Tibet, was stated. The close relationship of the American species with Siberian species was exhibited and their position as migrants was affirmed. Passing then to the larvæ and pupæ Dr. Avinoff showed the resemblances between Parnassius and Papilio larvæ particularly in the osmateria or scent glands, and between the lightly cocooned chrysalis of Parnassius and the belted chrysalis of Papilio and Pieris. The studies that have been made by various authors of the legs, the antennæ, the palpi, and the pouch-like appendages of the female abdomen were reviewed; with a final conclusion that Parnassius was an archaic type, exhibiting great recent development especially in the recently elevated region of Pamir.

His remarks were discussed by Dr. Lutz and others bringing out the holoarctic character of the genus *Parnassius* and the uncertainty as to the proper position for certain genera from Australia and South America which have been associated with it on the basis of venation but of which the life history is unknown. Dr. Avinoff's remarks follow in detail.

The genus *Parnassius* comprises 37 species of which over 350 local races, variations and aberrations have been described.

Central Asia is especially abundant in the representatives of this genus that reaches its main development in high alpine zones.

It is confined to the Holarctic region, 4 species inhabiting North America in Alaska and along the Rocky Mountains, 4 species are found in Europe; all the rest belongs to the Asiatic fauna. There are no *Parnassii* in Africa. The family of Papilionidæ to which the *Parnassius* belongs has a position among the Rhopalocera usually assigned close to the Pieridæ, though some authors like Dr. Karl Jordan, on the basis of the structure of the antennæ are inclined to range this family not far from the Nymphalidæ. Some characteristics even show certain affinity with the Hesperidæ.

The genus *Parnassius*, on the basis of structural studies has to be placed in the Papilionidæ family, though some authors like Swainson, Elwes, Edwards and others were inclined to create a special family of Parnassidæ, the main reason for that being the peculiarity of the pupa which is inclosed in a light cocoon. Other close genera like *Doritis* and *Hypermnestra* have the same characteristics of Heterocera, like pupation.

Another peculiarity of the Parnassii, shared by the allied genera of Luhedorfia, (Oriental) Eurycus (Australian) and Euryades (South American) is the strange pock-like appendix of the females that is absent only in Parnassius Sims Grey.

The comparison of patterns of the Parnassii points out as the oldest group those of the genus that possess a row of blue spots along the margin of their posterior wings. This characteristic is found in *Doritis* (Archon) too, which in every way seems to be the closest living representative of the group allied to this extinct Doritites and Thaitites found in the tertiary strata.

The striation on the wings of the *Doritis* is a remnant of a pattern of great phylogenia antiquity and corresponds to the analogous markings on the wings of another order of insects—the Trichoptera—especially in the Phryganidæ.

The glacial epoch had a great influence on the present distributions of the Parnassii on various mountain chains of Eurasia and partly on the plains as is the case with *P. mnemosyne*, *Stubendorfii* and some forms of *Apollo*.

The American representatives are undoubtedly of an Asiatic province and one can presume that the *Clodius* and *Smintheus* are the result of an earlier migration whereas *Nomion* and *Eversmamii*, scarcely modified from the corresponding species of the old world and confined to Alaska, reached the American soil comparatively in a more recent epoch.

The Parnassii furnish an illuminating reason to study the Holarctic region as a whole, as the old and new world in the temperate zone manifest a close affinity. It is in the Southern sections of the Palearctic and Nearctic faunas that the original characters of every continent begin to manifest themselves alongside of the vanishing general features of the Arctic type.

The faunas of the Palearctic and Nearctic regions represent thus a structure of strata with different values. The Mediterranean fauna corre-

sponds to the Sonoran in America and further on are substituted by widely different tropical types.

Mr. Davis exhibited his collection of *Osmoderma*, pointing out the color difference in the sexes and some remarkably small and slender specimens from New Hampshire and Maine. He also exhibited larvæ feeding in the seeds of burdock.

Chalcoides fulvicornis Fab.

In all American catalogues and literature regarding this halticine beetle, so far as the writer can learn, the species has always been listed or mentioned as Crepidodera helxines Linn. is nothing about the original description of Linnaeus by which this species can be identified and it would appear well to adopt the name used in European catalogues and other works, Chalcoides fulvicornis Fab. In 1913, Franz Heikertinger¹ published a note on this species, and after dissecting the male genital organs of European and American forms, which are figured and apparently show specific differences, suggested cataloguing the American species as Chalcoides fulvicornis nana Say.² Heikertinger's articles appear to have been completely overlooked by American writers. Ch. splendens Weise is indicated as a synonym and the distribution is given as Europe, Asia and North America and the name Ch. helxines Weise is similarly assigned to another species, Ch. smaragdulus Foudr. Since the above was written, Chas. Schaeffer³ has called attention to Ch. helxines violacea Melsh., assigning this name to the purple and bluishred specimens, which may now be called Ch. fulvicornis violacea Melsh. This form has been known by the writer for years as occurring in abundance on Prunus serotina at Ithaca, N. Y., and in the vicinity of the District of Columbia.

Specimens also have been seen which are blue, brown-bronze, and green-bronze. Typical *Ch. fulvicornis* is brilliant green with yellow antennæ and legs.—F. H. CHITTENDEN.

¹ Halticinae, Sonderabdruck Fauna Germ., Kaefer Deutsch. Reich. IV, 1913, p. 155.

² Verhandl. K. K. Zool.-bot. gesell. Wien., 1911, pp. 3-11.

³ Jour. Ent. Soc., N. Y., XXXII, p. 145, 1924.